

110TH CONGRESS
1ST SESSION

H. R. 632

To authorize the Secretary of Energy to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 23, 2007

Mr. LIPINSKI (for himself, Mr. INGLIS of South Carolina, Mr. DOYLE, Mr. BROWN of South Carolina, Mr. DENT, Mr. EHLERS, Ms. LORETTA SANCHEZ of California, Ms. EDDIE BERNICE JOHNSON of Texas, Mr. TERRY, Mr. McCAUL of Texas, Mr. GERLACH, Mr. CAMP of Michigan, Mr. BARRETT of South Carolina, Mr. WILSON of South Carolina, Mr. REICHERT, Mr. WOLF, Mr. WICKER, Mr. JOHNSON of Illinois, Mr. SOUDER, Mr. KUHL of New York, Mr. WYNN, Mr. LARSON of Connecticut, Mr. KINGSTON, Mr. LINCOLN DAVIS of Tennessee, Mr. ARCURI, and Mr. WAMP) introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

To authorize the Secretary of Energy to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “H-Prize Act of 2007”.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) ADMINISTERING ENTITY.—The term “ad-
4 ministering entity” means the entity with which the
5 Secretary enters into an agreement under section
6 3(c).

7 (2) DEPARTMENT.—The term “Department”
8 means the Department of Energy.

9 (3) SECRETARY.—The term “Secretary” means
10 the Secretary of Energy.

11 **SEC. 3. PRIZE AUTHORITY.**

12 (a) IN GENERAL.—The Secretary shall carry out a
13 program to competitively award cash prizes only in con-
14 formity with this Act to advance the research, develop-
15 ment, demonstration, and commercial application of hy-
16 drogen energy technologies.

17 (b) ADVERTISING AND SOLICITATION OF COMPETI-
18 TORS.—

19 (1) ADVERTISING.—The Secretary shall widely
20 advertise prize competitions to encourage broad par-
21 ticipation, including by individuals, universities (in-
22 cluding historically Black colleges and universities
23 and other minority serving institutions), and large
24 and small businesses (including businesses owned or
25 controlled by socially and economically disadvan-
26 taged persons).

1 (2) ANNOUNCEMENT THROUGH FEDERAL REG-
2 ISTER NOTICE.—The Secretary shall announce each
3 prize competition by publishing a notice in the Fed-
4 eral Register. This notice shall include the subject of
5 the competition, the duration of the competition, the
6 eligibility requirements for participation in the com-
7 petition, the process for participants to register for
8 the competition, the amount of the prize, and the
9 criteria for awarding the prize.

10 (c) ADMINISTERING THE COMPETITIONS.—The Sec-
11 retary shall enter into an agreement with a private, non-
12 profit entity to administer the prize competitions, subject
13 to the provisions of this Act. The duties of the admin-
14 istering entity under the agreement shall include—

15 (1) advertising prize competitions and their re-
16 sults;

17 (2) raising funds from private entities and indi-
18 viduals to pay for administrative costs and to con-
19 tribute to cash prizes;

20 (3) working with the Secretary to develop the
21 criteria for selecting winners in prize competitions,
22 based on goals provided by the Secretary;

23 (4) determining, in consultation with the Sec-
24 retary, the appropriate amount for each prize to be
25 awarded;

1 (5) selecting judges in accordance with section
2 4(d), using criteria developed in consultation with
3 the Secretary; and

4 (6) preventing the unauthorized use or disclo-
5 sure of a registered participant's intellectual prop-
6 erty, trade secrets, and confidential business infor-
7 mation.

8 (d) FUNDING SOURCES.—Prizes under this Act shall
9 consist of Federal appropriated funds and any funds pro-
10 vided by the administering entity (including funds raised
11 pursuant to subsection (c)(2)) for such cash prizes. The
12 Secretary may accept funds from other Federal agencies
13 for such cash prizes. The Secretary may not give any spe-
14 cial consideration to any private sector entity or individual
15 in return for a donation to the administering entity.

16 (e) ANNOUNCEMENT OF PRIZES.—The Secretary
17 may not issue a notice required by subsection (b)(2) until
18 all the funds needed to pay out the announced amount
19 of the prize have been appropriated or committed in writ-
20 ing by the administering entity. The Secretary may in-
21 crease the amount of a prize after an initial announcement
22 is made under subsection (b)(2) if—

23 (1) notice of the increase is provided in the
24 same manner as the initial notice of the prize; and

1 (2) the funds needed to pay out the announced
2 amount of the increase have been appropriated or
3 committed in writing by the administering entity.

4 (f) SUNSET.—The authority to announce prize com-
5 petitions under this Act shall terminate on September 30,
6 2018.

7 **SEC. 4. PRIZE CATEGORIES.**

8 (a) CATEGORIES.—The Secretary shall establish
9 prizes for—

10 (1) advancements in components or systems re-
11 lated to—

12 (A) hydrogen production;

13 (B) hydrogen storage;

14 (C) hydrogen distribution; and

15 (D) hydrogen utilization;

16 (2) prototypes of hydrogen-powered vehicles or
17 other hydrogen-based products that best meet or ex-
18 ceed objective performance criteria, such as comple-
19 tion of a race over a certain distance or terrain or
20 generation of energy at certain levels of efficiency;
21 and

22 (3) transformational changes in technologies for
23 the distribution or production of hydrogen that meet
24 or exceed far-reaching objective criteria, which shall
25 include minimal carbon emissions and which may in-

1 include cost criteria designed to facilitate the eventual
2 market success of a winning technology.

3 (b) AWARDS.—

4 (1) ADVANCEMENTS.—To the extent permitted
5 under section 3(e), the prizes authorized under sub-
6 section (a)(1) shall be awarded biennially to the
7 most significant advance made in each of the four
8 subcategories described in subparagraphs (A)
9 through (D) of subsection (a)(1) since the submis-
10 sion deadline of the previous prize competition in the
11 same category under subsection (a)(1) or the date of
12 enactment of this Act, whichever is later, unless no
13 such advance is significant enough to merit an
14 award. No one such prize may exceed \$1,000,000. If
15 less than \$4,000,000 is available for a prize competi-
16 tion under subsection (a)(1), the Secretary may omit
17 one or more subcategories, reduce the amount of the
18 prizes, or not hold a prize competition.

19 (2) PROTOTYPES.—To the extent permitted
20 under section 3(e), prizes authorized under sub-
21 section (a)(2) shall be awarded biennially in alter-
22 nate years from the prizes authorized under sub-
23 section (a)(1). The Secretary is authorized to award
24 up to one prize in this category in each 2-year pe-
25 riod. No such prize may exceed \$4,000,000. If no

1 registered participants meet the objective perform-
2 ance criteria established pursuant to subsection (c)
3 for a competition under this paragraph, the Sec-
4 retary shall not award a prize.

5 (3) TRANSFORMATIONAL TECHNOLOGIES.—To
6 the extent permitted under section 3(e), the Sec-
7 retary shall announce one prize competition author-
8 ized under subsection (a)(3) as soon after the date
9 of enactment of this Act as is practicable. A prize
10 offered under this paragraph shall be not less than
11 \$10,000,000, paid to the winner in a lump sum, and
12 an additional amount paid to the winner as a match
13 for each dollar of private funding raised by the win-
14 ner for the hydrogen technology beginning on the
15 date the winner was named. The match shall be pro-
16 vided for 3 years after the date the prize winner is
17 named or until the full amount of the prize has been
18 paid out, whichever occurs first. A prize winner may
19 elect to have the match amount paid to another enti-
20 ty that is continuing the development of the winning
21 technology. The Secretary shall announce the rules
22 for receiving the match in the notice required by sec-
23 tion 3(b)(2). The Secretary shall award a prize
24 under this paragraph only when a registered partici-
25 pant has met the objective criteria established for

1 the prize pursuant to subsection (c) and announced
2 pursuant to section 3(b)(2). Not more than
3 \$10,000,000 in Federal funds may be used for the
4 prize award under this paragraph. The admin-
5 istering entity shall seek to raise \$40,000,000 to-
6 ward the matching award under this paragraph.

7 (c) CRITERIA.—In establishing the criteria required
8 by this Act, the Secretary shall consult with—

9 (1) the Department’s Hydrogen Technical and
10 Fuel Cell Advisory Committee;

11 (2) other Federal agencies, including the Na-
12 tional Science Foundation; and

13 (3) private organizations, including professional
14 societies, industry associations, and the National
15 Academy of Sciences and the National Academy of
16 Engineering.

17 (d) JUDGES.—For each prize competition, the Sec-
18 retary shall assemble a panel of qualified judges to select
19 the winner or winners on the basis of the criteria estab-
20 lished under subsection (c). Judges for each prize competi-
21 tion shall include individuals from outside the Depart-
22 ment, including from the private sector. A judge may
23 not—

24 (1) have personal or financial interests in, or be
25 an employee, officer, director, or agent of, any entity

1 that is a registered participant in the prize competi-
2 tion for which he or she will serve as a judge; or

3 (2) have a familial or financial relationship with
4 an individual who is a registered participant in the
5 prize competition for which he or she will serve as
6 a judge.

7 **SEC. 5. ELIGIBILITY.**

8 To be eligible to win a prize under this Act, an indi-
9 vidual or entity—

10 (1) shall have complied with all the require-
11 ments in accordance with the Federal Register no-
12 tice required under section 3(b)(2);

13 (2) in the case of a private entity, shall be in-
14 corporated in and maintain a primary place of busi-
15 ness in the United States, and in the case of an in-
16 dividual, whether participating singly or in a group,
17 shall be a citizen of, or an alien lawfully admitted
18 for permanent residence in, the United States; and

19 (3) shall not be a Federal entity, a Federal em-
20 ployee acting within the scope of his employment, or
21 an employee of a national laboratory acting within
22 the scope of his employment.

23 **SEC. 6. INTELLECTUAL PROPERTY.**

24 The Federal Government shall not, by virtue of offer-
25 ing or awarding a prize under this Act, be entitled to any

1 intellectual property rights derived as a consequence of,
2 or direct relation to, the participation by a registered par-
3 ticipant in a competition authorized by this Act. This sec-
4 tion shall not be construed to prevent the Federal Govern-
5 ment from negotiating a license for the use of intellectual
6 property developed for a prize competition under this Act.

7 **SEC. 7. LIABILITY.**

8 (a) **WAIVER OF LIABILITY.**—The Secretary may re-
9 quire registered participants to waive claims against the
10 Federal Government and the administering entity (except
11 claims for willful misconduct) for any injury, death, dam-
12 age, or loss of property, revenue, or profits arising from
13 the registered participants' participation in a competition
14 under this Act. The Secretary shall give notice of any
15 waiver required under this subsection in the notice re-
16 quired by section 3(b)(2). The Secretary may not require
17 a registered participant to waive claims against the admin-
18 istering entity arising out of the unauthorized use or dis-
19 closure by the administering entity of the registered par-
20 ticipant's intellectual property, trade secrets, or confiden-
21 tial business information.

22 (b) **LIABILITY INSURANCE.**—

23 (1) **REQUIREMENTS.**—Registered participants
24 shall be required to obtain liability insurance or

1 demonstrate financial responsibility, in amounts de-
2 termined by the Secretary, for claims by—

3 (A) a third party for death, bodily injury,
4 or property damage or loss resulting from an
5 activity carried out in connection with participa-
6 tion in a competition under this Act; and

7 (B) the Federal Government for damage or
8 loss to Government property resulting from
9 such an activity.

10 (2) FEDERAL GOVERNMENT INSURED.—The
11 Federal Government shall be named as an additional
12 insured under a registered participant's insurance
13 policy required under paragraph (1)(A), and reg-
14 istered participants shall be required to agree to in-
15 demnify the Federal Government against third party
16 claims for damages arising from or related to com-
17 petition activities.

18 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

19 (a) AUTHORIZATION OF APPROPRIATIONS.—

20 (1) AWARDS.—There are authorized to be ap-
21 propriated to the Secretary for the period encom-
22 passing fiscal years 2008 through 2017 for carrying
23 out this Act—

24 (A) \$20,000,000 for awards described in
25 section (4)(a)(1);

1 (B) \$20,000,000 for awards described in
2 section 4(a)(2); and

3 (C) \$10,000,000 for the award described
4 in section 4(a)(3).

5 (2) ADMINISTRATION.—In addition to the
6 amounts authorized in paragraph (1), there are au-
7 thorized to be appropriated to the Secretary for each
8 of fiscal years 2008 through 2017 \$2,000,000 for
9 the administrative costs of carrying out this Act.

10 (b) CARRYOVER OF FUNDS.—Funds appropriated for
11 prize awards under this Act shall remain available until
12 expended, and may be transferred, reprogrammed, or ex-
13 pended for other purposes only after the expiration of 10
14 fiscal years after the fiscal year for which the funds were
15 originally appropriated. No provision in this Act permits
16 obligation or payment of funds in violation of section 1341
17 of title 31 of the United States Code (commonly referred
18 to as the Anti-Deficiency Act).

19 **SEC. 9. NONSUBSTITUTION.**

20 The programs created under this Act shall not be
21 considered a substitute for Federal research and develop-
22 ment programs.

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